IN THE CLAIMS

Cancel claims 1-16 and add new claims 17-32, reading as follows:

--17. (New) A device for atomizing liquid samples for spectroscopic measurements, comprising:

a tubular furnace which has a flame-heated tube;

an arrangement for introducing a sample into the tube;

said tube having a sample inlet opening to which a capillary leads;

said capillary being flame-heated at its end facing the tube along with the tube; and

a pump being provided for delivering a sample through the capillary;

said sample being partially or completely evaporated in the capillary acting as thermospray and flowing into the tube in this state.

18. (New) The device according to claim 17, wherein the capillary and the tube are fixedly connected mechanically with one another.

19. (New) The device according to claim 17, wherein the capillary is connected with an additional heating source.

20. (New) The device according to claim 17, wherein the burner head, tube and capillary are positioned with respect to one another in such a way that the tube is heated along its entire length and the capillary is heated at its end facing the tube.

21. (New) The device according to claim 17, wherein the capillary is constructed with an inner diameter of between 0.02 mm and 2 mm.

22. (New) The device according to claim 17, wherein the capillary comprises an extensively chemically resistant and temperature-resistant metal, an extensively chemically resistant and temperature-resistant metal alloy, ceramic and/or silica glass.

23. (New) The device according to claim 17, wherein the capillary is constructed cylindrically and has an inner cylinder jacket comprising ceramic or silica glass and an outer cylinder jacket comprising metal or a metal alloy.

24. (New) The device according to claim 17, wherein the flame-heated tube of the tubular furnace comprises an extensively chemically resistant and temperature-resistant metal, an extensively chemically resistant and temperature-resistant metal alloy, ceramic and/or silica glass.

25. (New) The device according to claim 24, wherein the flame heating is carried out by means of a burner head which is constructed as a slit burner.

26. (New) The device according to claim 17, wherein the pump is constructed as a continuously pumping peristaltic single-channel or multichannel pump, as a gas pressure pump, piston pump or diaphragm pump.

27. (New) The device according to claim 26, wherein a diaphragm pump is provided with a pulsation damper.

28. (New) The device according to claim 17, wherein a sample feed device in the form of a manual sample feed valve or a sample changer with an automatic sample feed valve is arranged between the pump and capillary.

29. (New) The device according to claim 17, wherein a sample changer is provided on the suction side of the pump.

30. (New) The device according to claim 28, wherein a partition column or enrichment column is arranged between the sample feed device and the capillary.

31. (New) The device according to claim 17, wherein the flame-heated tube of the tubular furnace has, besides the sample inlet opening and two end openings, at least one additional opening which is oriented in the direction of the burner slit.